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Violence: Recognition, Management, and Prevention

EMERGENCY DEPARTMENT SECURITY PROGRAMS, COMMUNITY CRIME, AND EMPLOYEE ASSAULTS

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□ **Abstract—Background: Violence against health care workers is a serious occupational health hazard, especially for emergency department (ED) employees. A significant degree of variability in security programs among hospital EDs is present in part due to the absence of federal legislation requiring baseline security features. Nationally, only voluntary guidelines from the Occupational Safety and Health Administration (OSHA) for the protection of health care workers exist. Objectives: The purpose of this study was to examine ED security programs and employee assault rates among EDs with different financial resources, size, and background community crime rates. Methods: This cross-sectional survey was conducted among large and small hospitals located in communities with low or high rates of community crime. Hospital financial data were collected through the state health department, and employee assault data were abstracted from hospital OSHA logs. Comparisons were made using a chi-squared or Wilcoxon test. Results: Small hospitals located in towns with low community crime rates implemented the fewest security program features despite having the second highest rate of assault-related OSHA-recordable injuries among ED employees (0.66 per 100,000 staff hours). Conclusion: Due to the highly stressful workplace characteristics of EDs, the risk of employee assault is universal among all hospital sizes in all types of communities.** © 2012 Elsevier Inc.

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INTRODUCTION

Violence in the workplace is a serious occupational and public health problem. In the United States, at least one worker is killed every week and nearly 2 million are assaulted every year (1,2). Several industry sectors are at particularly high risk for violence, including the retail trade and service industries. Within the service industry, employees in the health care sector experience high rates of non-fatal assaults, with the number of non-fatal violent incidents per 1000 workers estimated at 16.2 for physicians, 21.9 for nurses, and 69.0 for mental health employees compared to a rate of 12.6 for all occupations (2–5). Injuries from non-fatal assaults are estimated to be 4 to 12 times higher among health care and social service workers when compared to the overall rate for all private sector employers in the United States (5). The Bureau of Labor Statistics Annual Survey of Occupational Injuries and Illnesses in 2000 demonstrated that the percentage of injuries from violence requiring time away from work

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was highest in nursing homes (20%), social services (18%), and hospitals (15%) (6).

Health care workers in EDs and psychiatric departments are at higher risk of workplace assault than workers in other hospital departments (7). However, hospital security programs for EDs and psychiatric units have been found to have significant gaps. Hospital size and patient volume have been found to be related to the implementation of certain security program elements (8,9). In addition, it has been shown that state-mandated hospital security programs reduce rates of assault to ED and psychiatric department workers, but it is unclear how the comprehensive nature of these programs impacts those rates (10).

Although effective interventions to reduce workplace crime and related injury in the retail sector have been identified, few evidence-based programs have been evaluated for the health care setting (11). One factor that has been consistently identified as increasing the risk of workplace assaults in the retail sector is working in high crime areas (11). Although hospitals may serve a wide catchment area, the facility itself may be vulnerable to spillover crime from the local community. If this were the case, hospitals located in towns with high crime rates would expect to have a greater number of workplace assaults. In New Jersey, hospitals exist among a diverse set of communities that may differ 10-fold or more in their rate of violent community crime. Little is known about the influence of community crime rates on employee assaults in the health care industry.

The first goal of this project was to describe security characteristics and programs in hospital EDs in New Jersey and to describe the hospital budget for security. The second goal was to examine how these security features vary by the size of the hospital and by the hospital's background community crime rate. We hypothesized that large hospitals in communities with high crime rates would have more comprehensive security programs, more and better trained security staff, higher budgets for security, and a history of violence against ED employees when compared to small hospitals in high crime areas and hospitals of any size located in low crime areas. Institutional Review Board approval was granted for this study.

METHODS

Sample

In 2000, all 85 licensed acute care hospitals and trauma centers in New Jersey were identified through the New Jersey Department of Health and Senior Services (NJDHSS) Division of Health Care Quality and Oversight (HCQO) (8). Of these 85 hospitals, one had closed before the initiation of this study, resulting in a total of 84 eligible hospitals. These hospitals were grouped into categories of Trauma hospitals, General Acute Care facilities with 300 beds or more, and General Acute Care facilities with fewer than 300 beds. Hospitals were randomly selected from these strata to maintain a representative distribution of hospital types in New Jersey. A total of 71 hospitals were invited to participate in this study. Of those invited to participate, 50 EDs (70%) agreed to participate and are included in this analysis.

Data Collection

Hospital workplace violence prevention programs. A cross-sectional survey of security programs was conducted among New Jersey hospitals from 2003 through 2005. Two separate surveys were developed and used in this analysis, one for use with hospital security directors and the other for use with ED nurse managers. Security directors were either interviewed in person (74%) or over the phone (26%), and all nurse managers were interviewed in person. During the in-person interview, a walk-through inventory of the security program was conducted. The security director's interview was extensive and took approximately 1 h to complete, whereas the nurse manager's interview and ED walk-through each took approximately 20 min to complete. Interviews included questions about the hospital's policies, training, administrative involvement, and the presence of environmental controls. The security director interview also included questions regarding the approval of security department funding requests, the perceived importance of security to management, and the frequency of security meetings with senior managers. The walk-through inspection focused on the environmental design of the ED, specifically the presence of environmental deterrents to violence, such as access control procedures (e.g., locks, metal detectors), adequate lighting, and the elimination of areas where staff can become isolated with an aggressive patient.

Patient service revenue. Annual hospital net patient service revenue in 2004 was collected from NJDHSS, HCQO Division. The annual net patient service revenue represents the total annual revenue successfully collected by the hospital for inpatient and outpatient services. The total annual net patient service revenue was divided by the total number of licensed beds in each hospital. The majority of beds licensed were for acute care; however, several hospitals did have a small number of rehabilitation and long-term care beds included in their license and therefore were included in this analysis. This calculation provided the total net patient service revenue per bed and was used as a proxy for the financial health of each hospital.

Community crime rates. The New Jersey State Police Uniform Crime Code reports were used to identify index